



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,315	07/14/2003	Moshe Rosenberg	309J-000310US	7949

22798 7590 02/08/2008  
QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C.  
P O BOX 458  
ALAMEDA, CA 94501

EXAMINER
----------

MERCIER, MELISSA S

ART UNIT	PAPER NUMBER
----------	--------------

1615

MAIL DATE	DELIVERY MODE
-----------	---------------

02/08/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/620,315

**Applicant(s)**

ROSENBERG ET AL.

**Examiner**

Melissa S. Mercier

**Art Unit**

1615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 6-4-07, 9-4-07.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____  |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :12-8-03, 4-11-06, 4-5-07, 8-13-07.

### **DETAILED ACTION**

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. Below Applicant will find a newly issued Non-office action in response to the Pre-Appeal Conference decision dated November 28, 2007. Claims 1-15 and 17-26 remain pending in this office action.

### ***Information Disclosure Statement***

After a review of the Prosecution history in this application, it appears Applicant has not received initialed and signed copies of the Information Disclosure Statements of record. Therefore, the receipt of the Information Disclosure Statements filed on December 8, 2003, April 11, 2006, April 5, 2007, and August 13, 2007 is acknowledged and enclosed with this office action.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 8, 11, 13-15, 17, and 22-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Kyogoku et al. (US Patent 5,093,028).

Kyogoku discloses a gelled emulsion composed of a protein and a fat or oil component and is heat-stable and resistant to separation of the oil or fat component. Also disclosed is a process of producing said gel or stabilized emulsion by cross-linking the protein in an emulsion composed of a protein and a fat or oil component with an iridoid compound (abstract). It is the position of the examiner that the protein, fat or oil and iridoid compound are a hydrocolloid. The gel may be formed into any shape including sheets or blocks, fibers, and granules (column 3, lines 40-45). Vegetable and animal proteins including soybean, milk egg and collagen are disclosed (column 3, lines 56-62). The origins of the fats and oils include any kinds of fats and oils and may include animal and vegetable sources including soybean oil, safflower oil, palm oil, lard and tallow, for example (column 3, line 64 through column 4, line 1). Oil soluble components such as vitamin E may be incorporated in the oils and fats (column 4, lines 5-7). The examiner has interpreted vitamin E to read on the supplemental constituents in the dispersed phase. The concentration of protein is at least 2% (column 4, lines 11-13), which reads on Claims 22-24. The content of fat or oil is at least 2% (column 4, lines 17-19). The pH of the gelling reaction is 4-10 (column 4, lines 19-20). Kyogoku additionally discloses the cross linking reaction initiated by iridoid compounds could be combined with heating other known methods of getting the protein content of emulsions (column 2, line 67 through column 3, line 2). Example 2 discloses the use of sugars, sodium chloride, approximately 89% water, and sodium polyphosphate, a known emulsifying agent (column 5)

Since Kyogoku discloses the same composition of the instant claims, it would inherently possess the same functional limitations the instant claims recite.

***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 4-7 and 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kyogoku et al. (US Patent 5,093,028) in view of Rawlings et al. (US Patent 4,216,234).

The teachings of Kyogoku are discussed above and applied in the same manner.

Kyogoku does not disclose the lipid droplet particle range or surface area or the types of bonds present in the cross linking of the protein.

Rawlings teaches "a particulate composition which can be used as a food additive for animals, which comprises microencapsulated lips in albumin. (abstract).

Rawlings discloses a nutrient lipid is admixed with the aqueous medium of animal blood such as by homogenization or forming an emulsion under emulsion forming conditions (column 4, lines 21-24). Rawlings discloses delactosed whey powder was blended into an aqueous soybean oil mixture (column 10, lines 54-55). The Examiner is interpreting this method step to mean the whey protein was dissolved in the continuous aqueous phase. The lipid is dispersed within the aqueous medium in globules having a size of less than 0.1 millimeters and most preferably of a size in the

order of 0.5 to 10 microns" (column 4, lines 24-27). The surface area of the lipid droplets would be a property of the particle size of the droplets.

Rawlings further discloses the rumen bypass is best exemplified by microencapsulating a polyunsaturated vegetable oil having a high level of C18:2 (linoleic fatty acid). This fatty acid with normally degrade and predominantly hydrogenate forming lower chain saturated fatty acids when exposed to the normal rumen digestive process (column 7, lines 15-21). Additionally, Rawlings teaches, heating the dispersion or emulsion comprising globules of lipids at a temperature effective to form a lipid encapsulated gel (column 3, lines 3-6). This heating induces the formation of cross-linking between the albumin proteins.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have looked to Rawlings in order to optimize the gel formed by Kyogoku in order to provide a feed to ruminant animals which when fed will preclude the biodegradation of the majority of the nutrients in the rumen compartment of the stomach and thus provide for the manipulation of the site and form an assimilation of nutrients by the ruminant (Rawlings, abstract).

Claim 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kyogoku et al. (US Patent 5,093,028) in view of Cook et al. (US Patent 5,428,072).

The teachings of Kyogoku are discussed above and applied in the same manner.

Kyogoku does not disclose the use of conjugated linoleic acid.

Cook discloses a method of enhancing weight gain and feed efficiency in an animal by administering to the animal a safe and effective amount of conjugated linoleic acid (abstract). It is known that linoleic acid is found in seed oils.

It would have been obvious to a person of ordinary skill in the art to incorporate the teachings of Cook with the composition of Kyogoku since Cook discloses that its desirable to enhance the efficiency of feed conversion and enhance body weight in an animal since conjugated linoleic acids are natural food ingredients and relatively non-toxic (column 1, lines 55-68).

Claim 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kyogoku et al. (US Patent 5,093,028) in view of Winowski (US Patent 4,957,748).

The teachings of Kyogoku are discussed above and applied in the same manner.

Kyogoku does not disclose the specific sugar used or the type of cross linking reaction.

Winowski discloses a method of increasing the efficiency of utilizing protein in feed containing a protein and a reducing sugar mixed in quantities suitable for the Maillard reactions (abstract). Glucose, fructose, mannose, and ribose are disclosed (column 4, lines 27-29).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have employed the techniques disclosed by Winowski with the composition of Kyogoku in order to produce a feed which reduces the microbial



degradation of the fed protein in a superior manner and to increase the efficiency of utilization of fed protein by animals (column 2, lines 56-63).

### ***Response to Arguments***

Applicant's arguments, filed June 6, 2007, with respect to claims 1-15 and 17-26 have been fully considered and are persuasive. The all previously presented rejections have been withdrawn.

### ***Conclusion***

**Due to the new grounds of rejection presented, this action is made Non-Final.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa S. Mercier whose telephone number is (571) 272-9039. The examiner can normally be reached on 7:30am-4pm Mon through Friday.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/620,315  
Art Unit: 1615

Page 8

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MSMercier

  
MICHAEL P. WOODWARD  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600